What is claimed is:

1. A fiber module comprising:

a package having a structure which allows sealing of an inside of the package; and

an optical fiber having a cladding, first and second ends, and a predetermined length, and being fixed to said package in such a manner that the first end of the optical fiber appears inside the package;

wherein said cladding is exposed in a vicinity of the second end, and the optical fiber other than a portion of the cladding in said vicinity is coated with at least one of a metal and an inorganic material.

2. A fiber module comprising:

a package having a structure which allows sealing of an inside of the package; and

an optical fiber having a cladding, first and second ends, and a predetermined length, and being fixed to said package in such a manner that the first end of the optical fiber appears inside the package;

wherein said cladding is exposed in the vicinities of the first and second ends, and the optical fiber other than a portion of the cladding in said vicinities is coated with at least one of a

metal and an inorganic material.

3. A fiber module according to claim 1, wherein the package is hermetically sealed by flux free solder, an adhesive that does not contain Si organic materials, by fusion, or by welding.

4. A fiber module according to claim 2, wherein the package is hermetically sealed by flux free solder, an adhesive that does not contain Si organic materials, by fusion, or by welding.

5. A fiber module according to claim 1, wherein the interior of the package is filled with an inert gas.

6. A fiber module according to claim 2, wherein the interior of the package is filled with an inert gas.

7. A fiber module according to claim 5, wherein the inert gas includes at least one of a halogen gas, a halide gas, and oxygen at a concentration of 1PPM or greater.

8. A fiber module according to claim 6, wherein the inert gas includes at least one of a halogen gas, a halide gas, and oxygen at a concentration of 1PPM or greater.

9. A fiber module according to claim 1, further comprising:

light emitting elements and/or light receiving

elements; wherein

the light emitting elements and/or the light receiving elements are optically connected to an end of the optical fiber.

10. A fiber module according to claim 2, further comprising:

light emitting elements and/or light receiving elements; wherein

the light emitting elements and/or the light receiving elements are optically connected to an end of the optical fiber.

11. A fiber module according to claim 9, wherein said package contains,

a plurality of semiconductor lasers, for emitting a plurality of laser beams, provided as said light-emitting elements,

a plurality of collimator lenses which collimate the plurality of divergent laser beams emitted from the plurality of semiconductor lasers, respectively, and

a condensing lens which condenses the collimated laser beams, and makes the collimate laser beams converge on an end face of a core of the optical fiber at said first end.

12. A fiber module according to claim 10, wherein said package contains,

a plurality of semiconductor lasers, for emitting a plurality of laser beams, provided as said light-emitting elements,

a plurality of collimator lenses which collimate the plurality of divergent laser beams emitted from the plurality of semiconductor lasers, respectively, and

a condensing lens which condenses the collimated laser beams, and makes the collimate laser beams converge on an end face of a core of the optical fiber at said first end.

13. A fiber module according to claim 11, wherein the semiconductor lasers are one of:

a plurality of single cavity semiconductor laser elements aligned in an array;

a single multi cavity semiconductor laser element;

a plurality of multi cavity semiconductor laser elements aligned in an array; and

a combination of single cavity semiconductor laser elements and multi cavity semiconductor laser elements.

14. A fiber module according to claim 12, wherein the semiconductor lasers are one of:

a plurality of single cavity semiconductor laser elements aligned in an array;

a single multi cavity semiconductor laser element;

a plurality of multi cavity semiconductor laser elements aligned in an array; and

a combination of single cavity semiconductor laser elements and multi cavity semiconductor laser elements.

15. A fiber module according to claim 11, wherein said plurality of semiconductor lasers have an oscillation wavelength of 350 to 500 nm.

16. A fiber module according to claim 12, wherein said plurality of semiconductor lasers have an oscillation wavelength of 350 to 500 nm.

17. A fiber module according to claim 13, wherein said plurality of semiconductor lasers have an oscillation wavelength of 350 to 500 nm.

18. A fiber module according to claim 14, wherein said plurality of semiconductor lasers have an oscillation wavelength of 350 to 500 nm.

19. A method for producing a fiber module which includes a first optical fiber having a cladding, first and second ends, and a predetermined length, comprising the steps of:

(a) exposing a portion of said cladding in a vicinity of the second end, and coating the first optical fiber other than said portion with at least

one of a metal and an inorganic material;

(b) fixing said first optical fiber to a package having a structure which allows sealing of an inside of the package, in such a manner that the first end of the first optical fiber appears inside the package;

(c) degassing the inside of the package; and

(d) hermetically sealing the package.

20. A method for producing a fiber module which includes a first optical fiber having a cladding, first and second ends, and a predetermined length, comprising the steps of:

(a) exposing a portion of said cladding in a vicinity of the second end, and coating the first optical fiber other than said portion with at least one of a metal and an inorganic material;

(b) fixing said first optical fiber to a package containing either light-emitting elements or light-receiving elements and having a structure which allows sealing of an inside of the package, in such a manner that the first end of the first optical fiber appears inside the package, and said first optical fiber is optically coupled to said at least one of light-emitting elements and light-receiving elements at said first end;

(c) degassing the inside of the package; and

(d) hermetically sealing the package.

21. A method according to claim 19, further comprising the step of coupling said second end of the first optical fiber to a second optical fiber being coated with a resin and having a predetermined length, after said step (d).

22. A method according to claim 20, further comprising the step of coupling said second end of the first optical fiber to a second optical fiber being coated with a resin and having a predetermined length, after said step (d).

23. A method according to claim 21, further comprising the step of at least partially reinforcing a portion of the fiber module between a wall of the package and the second optical fiber by using a reinforcing member.

24. A method according to claim 22, further comprising the step of at least partially reinforcing a portion of the fiber module between a wall of the package and the second optical fiber by using a reinforcing member.